

DS00020918 0166 3.08
11/03/1998
AGENCY REVIEW/REVISED DRAFT OUI RI REPORT

Department of Toxic Substances Control

Jesse R. Huff, Director
700 Heinz Avenue, Suite 200
Berkeley, California 94710-2721N00236.000031
ALAMEDA POINT
SSIC NO. 5090.3Pete Wilson
GovernorPeter M. Rooney
Secretary for
Environmental
Protection

November 3, 1998

Commanding Officer
Engineering Field Activity, West
Naval Facilities Engineering Command
Attn: Ms. Patricia McFadden, Code 612
900 Commodore Drive
San Bruno, CA 94066-2402

OPTIONAL FORM 98 (7-90)

FAX TRANSMITTAL

of pages 5

To	Mukul Sharma	From	Patricia McFadden
Dept./Agency	TTenu	Phone #	650-244-2520
Fax #	312/938-0118	Fax #	856-8702
NSN 7540-01-317-7368		5000-101 GENERAL SERVICES ADMINISTRATION	

REVISED DRAFT OPERABLE UNIT 1 REMEDIAL INVESTIGATION REPORT,
ALAMEDA POINT, ALAMEDA, CALIFORNIA

Dear Ms. McFadden:

The Department of Toxic Substances Control (DTSC) has reviewed the Revised Draft Operable Unit 1 Remedial Investigation Report for Alameda Point, dated September 3, 1998. This document is significantly improved over the version on which DTSC commented in April 1998. These improvements make it easier for the reader to evaluate site characterization and human health and ecological risk assessment. The improvements have also resulted in revision of IR site boundaries and re-designation of Operable Units.

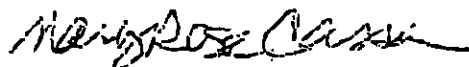
DTSC has concerns about several issues that are not strictly related to OU-1, but which pertain to all operable units (designation of IR site boundaries) or remediation and transfer (marsh crust, groundwater, institutional controls). These items are included here for emphasis and to facilitate resolution and continuing our substantial progress toward transfer of property. There remain outstanding and unresolved issues pertaining to all OUs and, in particular to property that the Navy considers non-IR property (Conveyance Parcel A). Although the investigation of OUI is an important part of overall evaluation, cleanup, and transfer of Alameda Naval Air Station property, DTSC fully expects that the entire facility, fence-line-to-fence-line, will be evaluated, and that the evaluation will be documented. Basewide PAH contamination and groundwater contamination are two issues that must be resolved prior to final decision making pursuant to the NCP and property transfer.

Ms. Patricia McFadden
November 3, 1998
Page 2

Issues which pertain specifically to OU-1 and are of concern to DTSC include the following: (1) characterization of Site 15; (2) selection of contaminants of concern; (3) presentation of DTSC risk assessment values; (4) evaluation of sites having a risk exceeding 1×10^{-6} ; (5) presentation of residential future residential use scenario; (6) evaluation of the weight of evidence approach for ecological risk assessment; and (7) ecological assessment for potential future uses. Detailed comments, including those regarding human health and ecological risk assessment and basewide site description, are enclosed. Comments from the California Department of Fish and Game will be forwarded under separate cover.

If you have any questions regarding this letter, please contact me at (510)540-3814.

Sincerely,



Mary Rose Cassa, R.G.
Engineering Geologist
Office of Military Facilities

enclosures

cc: see next page

Ms. Patricia McFadden

November 5, 1998

Page 3

cc: Mr. Steve Edde
BRAC Environmental Coordinator
950 Mall Square, Building 1, Room 245
Alameda, CA 94501

- Ms. Anna-Marie Cook (SFD-8-2)
Ms. Lynn Suer (SFD-8-2)
U. S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, CA 94105

Mr. Mark Ruderman
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Ms. Elizabeth Johnson
Alameda Reuse and Redevelopment Authority
950 Mall Square
Alameda, CA 94501

Mr. Ken Kloc
ARC Ecology
833 Market Street, Suite 1107
San Francisco, CA 94103

**DEPARTMENT OF TOXIC SUBSTANCES CONTROL
COMMENTS ON REVISED DRAFT OPERABLE UNIT 1 REMEDIAL
INVESTIGATION REPORT, ALAMEDA POINT, ALAMEDA, CALIFORNIA**

General Comments

1. Figure 1-2, Base Map: DTSC has raised concerns about the status of several parcels where a CERCLA removal action is taking place to remove radiological contamination. The Navy's documentation of the removal action refers to IR Sites 1, 2, 5, and 10. During negotiations regarding cleanup levels for that removal action in the vicinity of Buildings 5 and 400, the Navy's team agreed to address any contamination remaining after the removal action was completed as part of the IR Site 5 (and Site 10) remedial investigation. DTSC has repeatedly requested that the Navy revise its maps to indicate that the following parcels or parts thereof are affected by the CERCLA removal action and are to be addressed in the Site 5 (and Site 10) Remedial Investigation: Parcels 23, 26, 28, 30, 50, 51, and 204.
2. Discussions of "background" and "ambient" concentrations: The Navy should be consistent in using "background" to refer to naturally occurring concentrations of inorganic chemicals related to bedrock, and "ambient" to refer to concentrations of inorganic chemicals that are present in fill and not related to site sources.
3. Site locations: Please check the descriptions of site locations for all sites. Some descriptions do not make sense with respect to listed street intersections; some street names are not consistent.
4. The report lists options to be considered for a risk management decision when the site risk is between 1×10^{-6} and 1×10^{-4} as including no further action, institutional controls, site monitoring, and remedial action. Institutional controls are a remedial action and must be documented in a Remedial Action Plan/Record of Decision. Similarly, the report states, "Neither the reuse plan nor EBMUD plan on using groundwater at Alameda Point as a source of drinking water," and uses this as a basis for potentially taking no cleanup action. Such a decision must be documented as an institutional control, and a method to establish, monitor, and enforce the control must be identified.
5. The report contains data that is found in reports for other Navy environmental programs, such as the RCRA program. Please ensure that the data are consistent between programs. For example, tank capacities for Site 7 (page 6-28) are not consistent with those listed for the site under the RCRA program.
6. Sites that are described as being "very distant" from surface water bodies (i.e., San Francisco Bay) are evaluated by the Navy as having a low probability that chemicals will be available for aquatic receptors. This evaluation must include storm drains as a likely

conduit to the Bay.

7. Data from Environmental Baseline Survey: DTSC appreciates the Navy's incorporation of EBS data in the site characterization. It would help in evaluating the EBS data in the context of the RI if the EBS summary included the range of depths sampled and if groundwater was sampled.
8. This report documents the presence of elevated concentrations of polyaromatic hydrocarbons at the Bay Sediment/fill interface that may represent industrial contamination of former subtidal deposit. These deposits are analogous to the Marsh Crust identified at FISCO Alameda Facility/Alameda Annex and extending as far east as Moonlight Terrace at Alameda Point. DTSC has already requested that the Navy prepare a feasibility study to screen remedial alternatives for contamination in the marsh crust and related subtidal deposits, and has encouraged the Navy to address related contamination at both facilities in one document. The feasibility study would evaluate various remedial alternatives including no action, soil removal, and institutional control. DTSC foresees that an institutional control in the form of a deed restriction would be the likely remedy for this contamination.

Specific Comments

1. Section 1.5, page 1-10: The discussion of conveyance should include the development of a Finding of Suitability to Transfer.
2. Section 2.2, Installation-Wide Geology, page 2-6: The description of grain-size differentiation relative to hydraulic fill emplacement is effective and important in understanding fate and transport.
3. Section 2.2, Installation-Wide Geology, page 2-9: The interface of the Bay Sediments and Fill is described as being marked by "a vegetative layer, peat layer, or a layer with high organic content." Please include a description of the nature of the "organic content," including types of compounds and range of concentrations. This information will be important in evaluating the extent of historic contamination that may be related to marsh crust and related subtidal deposits.
4. Section 2.2, Installation-Wide Geology, page 2-32: The text refers to five discrete fill areas that were initially identified for determining the variability in the fill material, but the list appears to include only four areas.
5. Site 6, page 6-4: The text makes reference to previous site history as Alameda Point Air Terminal. Please provide further information, because this history might help explain the distribution of contamination at the site.

6. Site 6, page 6-4: The text states that sanitary and storm sewer lines exit Building 41, and later states that the building is not tied directly to the sanitary sewer system. Please correct this apparent contradiction.
7. Site 7: The text should state clearly that Site 7 is under consideration for corrective action under the Navy's Underground Storage Tank Program. To state that the site is being considered for corrective action under the RCRA program is confusing.
8. Site 7: The Navy Exchange Service Station operated during the time that MTBE was added to gasoline. The report should make reference to this chemical as a likely constituent, and indicate if MTBE is on the Navy's current list of analytes for this site.
9. Site 7, page 6-27: The text makes reference to a storm drainage culvert located east of the site. Please indicate which direction the culvert drains.
10. Site 7, page 6-28: Please identify the 17 borings from the 1987 investigation.
11. Site 7, page 6-28: The text states, "Low levels ... of PCBs were detected in shallow and surface soil samples north of the transformer pad." This information does not agree with the information shown on Figure 6-2f.
12. Site 7, page 6-29: The text mentions free product identified during previous investigations. Please include the current status of this free product.
13. Site 7, page 6-39: Please include how the wells were selected for determining the presence of free product using the dual-phase probe.
14. Site 7, page 6-39: Please explain in the text why concentrations in HydroPunch samples are typically higher than concentrations in monitoring well samples.
15. Site 7, page 6-46, Lead Assessment: The two "hot spots" of 2180 and 6760 mg/kg may represent a single package of contaminated soil. This contamination should be further investigated.
16. Site 15: DTSC is concerned about the elevated concentrations of PCBs and lead outside the fence that marks the effective perimeter of the former Alameda Naval Air Station and the arbitrary north boundary of Site 15. Lead concentrations are at least one order of magnitude higher than concentrations outside the removal action area south of the fence. The highest lead concentration among the eight samples north of the fence is 954 mg/kg. Similarly, PCB concentrations north of the fence are about an order of magnitude higher than concentrations outside the removal action area south of the fence. The highest PCB concentration among the eight samples north of the fence is 2.7 mg/kg (Aroclor-1260). It appears that contamination associated with activities at Site 15 has been remediated, but

the Navy has not adequately characterized contamination existing outside the arbitrary site boundary. The BCT should evaluate the site history for the area north of the fence and determine how to proceed.

17. Site 16, page 6-109: The text describes the use of the storage yard "before" the large CANS containers were placed in the yard. Please state when the CANS were placed.
18. Site 16, page 6-109 and related figures: The site maps indicate the locations of "former building 338" and "former building 338S." Please include these buildings in the site history.
19. Site 16, Figure 6-5j: The map showing volatile organic compounds detected in groundwater in the first water-bearing zone indicates an inferred 1.0 ug/kg contour northwest (downgradient) of the hit at MWC2-2. At the BCT meeting on October 20, the Navy stated that nearby data points not included in OU-1 provide the rationale for closing this contour. Please include that rationale in the report.

Cal/EPA

Department of
Toxic Substances
Control

400 P Street,
4th Floor
P.O. Box 806
Sacramento, CA
95812-0806

MEMORANDUM

TO: Mary Rose Cassa, Project Manager
Office of Military Facilities - Berkeley,
700 Heinz, Building F, 2nd Floor
Berkeley, CA 94710

FROM: James M. Pofisini, Ph.D.
Staff Toxicologist
Human and Ecological Risk Division (HERD)

DATE: October 29, 1998

SUBJECT: ALAMEDA POINT (NAVAL AIR STATION ALAMEDA)
OPERABLE UNIT (OU) 1 REVISED REMEDIAL INVESTIGATION
REPORT
[PCA 14740 SITE 200004-47 H:62]

Pete Wilson
Governor

James M. Surock
Secretary for
Environmental
Protection

Background

We have reviewed the document titled OU-1 Remedial Investigation Report Alameda Point Revised Draft, dated August 28, 1998 and prepared by HSI GeoTrans of Westminster, Colorado. This Remedial Investigation (RI) Report addresses the human health risk and ecological hazard associated with contaminants at Sites 6, 7, 8, 15 and 16. This review concentrates on Chapter 5 and Chapter 6, which contain the human health and ecological risk assessments as well as Volume D, which contains the details of the human health risk assessment. This review is in response to your written work request dated September 11, 1998.

The sites contained in Operable Unit (OU) 1 were changed after release of the draft RI Report for OU1. That is the reason this RI Report is called a Revised Draft RI Report.

General Comments

1. Incremental cancer risk is calculated using two different methods, one described as the EPA/NAVY method and the other as the DTSC method. The differences in methodology are mainly the use of California-specific cancer slope factors, use of DTSC-recommended dermal absorption factors and use of oral cancer slope factors for the inhalation route of exposure in the absence of inhalation cancer slope factors in the DTSC methodology. As the revised draft RI Report defaults to the EPA/NAVY methodology for all conclusions, the DTSC risk manager should be aware that the incremental cancer risk estimates using the DTSC methodology are greater than the estimates based on the EPA/NAVY methodology.
2. HERD considers an incremental cancer risk of 1×10^{-6} as the point of departure. Sites with incremental cancer risk exceeding 1×10^{-6} are candidates for risk management options to reduce exposure and therefore reduce risk. The selection of the

Mary Rose Cassa
October 29, 1998
Page 2

options to reduce exposure and therefore reduce risk. The selection of the appropriate remedial alternatives is based on the nine balancing criteria outlined in the National Contingency Plan (NCP). Discussion of an 'acceptable risk range' is not appropriate for an RI Report and should be removed.

3. The future residential use scenario is separated from the main document for several sites and placed in Appendix D. The revised RI Report states that the future residential use scenario was performed for some sites only because it was requested by some regulatory agencies. The Alameda Reuse Plan for each of the seven areas of Alameda Point (Section D.3.2, pages 5 and 7) includes potential residential use for all seven areas except the Park/Open Space areas. We recommend the incremental cancer risk and non-cancer hazard for the future residential use scenario be included in the Conclusions and Recommendations section of Volume I for each site.
4. Evaluation of the weight of evidence approach for the ecological risk assessment at OU1 Sites would be facilitated by presentation of the evaluation criteria exceeded by each contaminant of potential concern (COPC) in a tabular form. We suggest a table with the ecological evaluation criteria as column headings, the COPCs as row headings and a simple designation such as 'X' for each COPC exceeding the ecological evaluation criteria.
5. The ecological assessment for potential future uses at several OU1 sites in the RI Report is based on the premise that if the pavement is removed it is doubtful that future ecological habitat would rival existing habitat at the West Beach Landfill Wetland and the Runway Wetland. Experience at other closing bases in the San Francisco Bay Region indicates that wetlands are sometimes created at closing bases with land on the bay margin. A wetland is being developed at Crissy Field at the Presidio of San Francisco and wetland creation is being investigated for Parcel E at Hunters Point Annex. The multiple criteria used in the RI Report weight of evidence approach applied to soils in the ecological assessment include criteria which could be used to evaluate whether future wetland creation at OU1 sites would pose a significant ecological hazard. If the assessment of future ecological hazard at Alameda Point OU1 sites is not based on these criteria, but based on a disparity of future OU1 habitat relative to existing wetland, some means of preventing future wetland creation at OU1 sites must be implemented.

Specific Comments

1. Our understanding of the discussion for selecting contaminants of concern (COCs) from the list of COPCs for the human health risk assessment is that a comparison could be made to one-tenth (0.1) the U.S. EPA Region 9 Preliminary Remediation Goals (PRGs) as long as no more than 10 COPCs were eliminated from the list of COCs. The statement regarding the use of EPA Region 9 PRGs should be amended to reflect this restriction (Section 5.1.2, page 5-5).
2. The word 'marine' is misspelled 'maring' when discussing potential exposure pathways for marine and estuarine organisms (Section 5.2.2, page 5-21). Please correct this typographic error.
3. National Oceanic and Atmospheric Administration (NOAA) Effects Range-Low (ER-L) values were not developed from available Lowest Observable Effect Concentration (LOECs). The NOAA ER-L values and Effects Range-Median (ER-M) values were developed from sediment effect and no-effect measurements collected in the NOAA

W310 848 3283

DISC UNIT DERIVED

OCT-30-1998 09:32 FROM DTSC GLENDALE

10 031060J

Mary Rose Casan

October 29, 1998

Page 3

Status and Trends Program. The reference to LOEC values should be removed from the text (Section 5.2.4, page 5-23).

4. We do not agree with the method used to estimate mammalian tissue concentrations (Section 5.2.4, page 5-24 and 5-25). The Navy contractors have agreed not to use this method in the future based on HERD comments for other Alameda Point sites. We will not insist that the methodology be changed at this late date, given the relative lack of terrestrial habitat at the OU1 sites discussed in this Revised RI Report. Do not use this methodology for estimating mammalian tissue concentrations in future ecological risk assessments.
5. This discussion of chemical movement in groundwater (Section 5.3.1, page 5-27) refers to advection and dispersion. Movement of non-aqueous phase liquids (NAPLs) in groundwater differs significantly from movement of dissolved materials. The text should indicate either that NAPLs do not occur for OU1 sites or make the distinction in transport mechanisms.
6. More than 10 COPCs were eliminated as COCs based on a comparison to one-tenth the EPA Region 9 PRGs (See specific comment number 1). For the zero to 10 foot soil interval (Table 5-1b), 11 COPCs were eliminated for Site 6, 13 COPCs were eliminated for Site 7, 13 COPCs were eliminated from Site 15 and 17 COPCs were eliminated from Site 16. This is counter to our agreement on screening criteria unless the number of COPCs which are carcinogens or non-carcinogens is approximately equal so that fewer than 10 COPCs were eliminated both for carcinogens and non-carcinogens. Please provide some additional discussion in the text or limit the number of COPCs eliminated by comparison with one-tenth the EPA Region 9 PRGs to 10 or less.
7. HERD will defer to the DTSC Geological Services Unit regarding the fate and transport model input parameters (Table 5-5) chosen to assess groundwater transport.
8. Conclusions for all OU1 Sites are based on the EPA/NAVY methodology, not the DTSC methodology (Section 6.1.8.1, page 6-15). The DTSC project manager should consider that the incremental cancer risk calculated by the DTSC methodology is greater than that calculated using the EPA/NAVY methodology due mainly to different cancer slope factors and different dermal absorption factors. For example, the incremental cancer risk (ICR) for the residential use or occupational use Reasonable Maximum Exposure (RME) at OU1 sites is:

Site	EPA/NAVY RME Methodology Residential Soil ICR (Total ICR for Soil & Groundwater)	DTSC RME Methodology Residential Soil ICR (Total ICR for Soil & Groundwater)
6	6.8×10^{-6} (4.9×10^{-6})	8.4×10^{-6}
7	9.8×10^{-6} (1.3×10^{-5})	1.5×10^{-5}
8	2.1×10^{-5} (3.4×10^{-5})	4.3×10^{-5}
15*	4.7×10^{-5}	4.8×10^{-5}
16*	7.5×10^{-5}	1.2×10^{-4}
*Occupational Scenario		

OCT-30-1998 09:32 FROM DTSC GLENDALE

TO B5/1320

Mary Rose Cassa
October 29, 1998
Page 4

9. Please provide a description in the text (Section 6.1.8.2, page 6-18) of the number of visits and the total time spent in Site 6 reconnaissance for potential ecological receptors.
10. HERD does not accept the Agency for Toxic Substances and Disease Registry (ATSDR) general background values for polycyclic aromatic hydrocarbons (PAHs) of 82 mg/kg for heavy molecular weight PAHs and 166 mg/kg for light weight PAHs (Section 6.1.10, page 6-25) as representative of 'ambient' PAH values for California soils. Based on investigations of town gas sites, a more realistic value for 'ambient' PAHs in benzo(a)pyrene equivalents is 0.2 mg/kg to 0.4 mg/kg. The upper tolerance limit on the California 'ambient' benzo(a)pyrene equivalent concentration would be approximately 0.97 mg/kg. We have no objection to including a national 'ambient' PAH value in the discussion of the soil concentrations, but a more realistic California-specific benzo(a)pyrene equivalent value must be included in the discussion.
11. The statement that incremental cancer risk is within an 'acceptable risk range' (Section 6.2.8.1, page 6-48), even if appropriate for a Remedial Investigation (RI) Report, is not true for the incremental cancer risk based on DTSC recommendations. Please amend the text to clearly indicate where the incremental cancer risk is in excess of 1×10^{-6} for the DTSC recommended methodology.
12. HERD would not agree that frequency of detection for PAHs of 38 percent for Site 7 could be characterized as 'low' (Section 6.2.8.2, page 6-48). Please amend the text to indicate that frequency of detection of PAHs in Site 7 soil is variable.
13. Lead is characterized as it '...may be related to activities at Site 7...' (Section 6.2.8.2, page 6-51) with a maximum soil concentration of 6760 mg/kg in sample B07A-02. One page later it appears that '... no ecological chemicals of concern were identified for Site 7' (Section 6.2.8.2, page 6-52). Soil lead concentrations up to 6760 mg/kg appear to pose a potential adverse ecological effect. Please provide more justification for this conclusion or amend the text.
14. Arsenic is attributed to sources not related to Site 7 activities (Section 6.2.10, page 6-58). However, there appear to be two 'hot spots' of elevated arsenic concentration at Site 7 (Section 6.2.1, page 6-54) north of the existing underground storage tanks (USTs) and south of the abandoned USTs. Please describe the intended evaluation for these two Site 7 locations.
15. It is unclear why the average Site 8 groundwater concentration is discussed (Section 6.3.8.1, page 6-75) in the fate and transport section. The required groundwater concentration for human health risk assessments is the 95th Upper Confidence Limit (UCL) on the mean. Please clarify the text or use the 95th UCL on the mean for these comparisons.
16. The summary table for total risk at Site 8 indicates the EPA/NAVY residential scenario incremental cancer risk is 3.3×10^{-6} . A residential scenario incremental cancer risk of 3.4×10^{-6} is indicated earlier (Section 6.3.8.1, page 6-72). This is most probably a rounding error. Please amend either statement so both are correct and agree.
17. A future residential use scenario should be included for Site 15 (Section 6.4.3, page 6-86), unless the Navy wishes to institute risk management measures to restrict

Mary Rose Cassa
October 28, 1998
Page 5

future use of Site 15 to non-residential uses. This restriction should also restrict uses which might expose particularly sensitive sub-populations such as children or extended care facilities for those of compromised health.

18. Please provide additional information in the text to describe how groundwater can be 'unimpacted' at Site 15 with a discussion of migration of the potential ecological threat associated with Site 15 groundwater migration to the 'harbor' three lines later (Section 6.4.3, page 8-86). These two statements appear to be contradictory.
19. The RI Report should document, by reference to meeting minutes or previous reports, the agreement for soil remedial action objectives (RAOs) for Site 15 of 1 mg/kg for polychlorinated biphenyls (PCBs) and 300 mg/kg for lead (Section 6.4.5, page 8-88).
20. We recommend that the discussion of Site 15 volatile organic compounds (VOCs) (Section 6.4.7.1, page 8-92) in soil state that the single detection of 1,4-dichlorobenzene and 1,2,4-trichlorobenzene at 2 feet below ground surface (bgs) indicate that the concentrations were a minor fraction of their PRGs to indicate the concentrations were well below risk-based levels.
21. HERD is unaware of the 'California Regulations' referenced in the exclusion of the future residential use scenario for Site 15 (Section 6.4.9.1, page 8-98). In fact, HERD has informed the Navy, in previous memoranda, that the Code of California Regulations (CCR) section defining the responsibilities of the California Coastal Commission does not preclude residential development. Please include the future residential use scenario human health calculation of incremental cancer risk and non-cancer hazard in the text of the RI Report for Site 15 and remove the vague reference to 'California Regulations' as excluding residential development.
22. The discussion of incremental cancer risk and non-cancer hazard associated with the use of groundwater in a future residential use scenario should be included in the text of the RI Report rather than segregated in Appendix D (Section 6.4.9.1, page 8-97). Please see specific comment number 17 regarding the future residential use scenario for Site 15.
23. We agree that the strip of land adjacent to the Oakland Inner Harbor adjacent to Site 15 may pose a threat and should be further evaluated (Section 6.4.9.2, page 8-103).
24. The summary table for total risk at Site 15 indicates the EPA/NAVY occupational scenario incremental cancer risk is 3.8×10^{-6} (Section 6.4.11, page 8-106). An occupational scenario incremental cancer risk of 4.7×10^{-6} is indicated earlier (Section 6.3.9.1, page 8-96). Please amend either statement so both are correct and agree.
25. Please explain the difference in the conceptual site models for Site 15 and 16 which call for evaluation of potential groundwater pathways for the Site 15 human health risk assessment (Section 6.4.11, page 8-106), but allow potential groundwater pathways to be considered 'Not Applicable' for Site 16 (Section 6.5.11, page 8-128). No groundwater COCs were detected at Site 15. Immediately after the summary table for Site 16 the incremental cancer risk associated with Site 16 groundwater use in a future residential scenario is listed as 1.5×10^{-6} .
26. Appendix D - Human Health Risk Assessment

Mary Rose Cassa
October 29, 1998
Page 8

27. The exposure parameters (Tables D.5.2-1 through D.5.2-18) were checked at random and found to be those previously agreed upon.
28. The DTSC dermal absorption factors (Table D.5.4-17) were checked and found to accurately reflect those contained in the DTSC Preliminary Endangerment Assessment (PEA) Manual.
29. The EPA Cancer Slope Factors (CSFs) (Table D.6.6-1), extracted from the U.S. Environmental Protection Agency (EPA) Integrated Risk Information System (IRIS), were checked at random and found to accurately reflect the values contained in IRIS. The CalEPA CSFs were checked at random and were found to accurately reflect the most recent listing by the Office of Environmental Health Hazard Assessment (OEHHHA).
30. The non-carcinogenic toxicity values (Table D.6.6-2) extracted from the U.S. EPA Region IX PRG tables were checked at random and found to be accurate with a single exception. The oral reference dose (RfDo) for dieldrin is listed as $5.0E-04$, while the EPA Region 9 PRG table contains an RfDo of $5.0E-05$. The estimate of non-carcinogenic hazard via ingestion of dieldrin in this revised RI Report is therefore one order of magnitude less than would developed using an RfDo of $5.0E-05$.
31. Intake calculations, and the associated non-cancer hazard and incremental cancer risk, were checked at random and we were able to duplicate the values presented.

Conclusions

The DTSC risk manager should be aware that none of the recommendations contained in this RI Report are based on the DTSC methodology. The DTSC methodology yields higher estimates of incremental cancer risk than the methodology applied due mainly to different cancer slope factors and dermal absorption rates. The DTSC methodology future residential use scenario incremental cancer risk and non-cancer hazard should be included in the main text of the revised RI Report.

The current and future use ecological risk assessment could be strengthened by tabular presentation of the evaluation criteria and evaluation of potential future wetland creation.

Reviewed by: Brian K. Davis, Ph.D.
Staff Toxicologist, HERD

cc: Michael J. Wade, Ph.D., DABT, Senior Toxicologist, OMF Liaison, HERD

Ned Black, Ph.D., BTAG Member
U.S. EPA Region IX,
Superfund Technical Assistance Section (SFD-8-8)
75 Hawthorne Street
San Francisco, CA 94106

Susan Gladstone, BTAG Member
San Francisco Regional Water Quality Control Board
Federal Facilities Unit
1515 Clay Street, Suite 1400
Oakland, CA 94612

OCT-30-1998 09:33 FROM DTSC GLENDALE

Mary Rose Casaa
October 29, 1998
Page 7

Susan Ellis, BTAG Member
California Department of Fish and Game
1700 K Street, Suite 250
P.O. Box 944209
Sacramento, CA 94244-2090

Laurie Sullivan, BTAG Member
Coastal Resources Coordinator (H-1-2)
c/o U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

James Haas, BTAG Member
U.S. Fish and Wildlife
Environmental Contaminants Section
3310 El Camino Avenue, Suite 130
Sacramento, CA 95821

(818) 551-2853 Voice
(818) 551-2841 Facsimile
c:\mpt\sk\kase\out\rev\rev\ed\ed\h82



Department of Toxic Substances Control

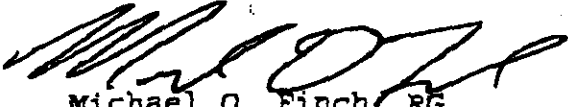
Jesse R. Huff, Director
10151 Croydon Way, Suite 3
Sacramento, California 95827-2106



Pete Wilson **MEMORANDUM**
Governor

Peter M. Rooney
Secretary for
Environmental
Protection

TO: Mary Rose Cassa DATE: 2 Nov. 98
Office of Military Facilities
DTSC Berkeley Office
700 Heinz Ave., Bldg. F, Suite 200
Berkeley, CA 94710

FROM: 
Michael O. Finch, RG
Geologic Services Unit
DTSC Sacramento Office
10151 Croydon Way, Suite 3
Sacramento, CA 95827

SUBJECT: Review of Alameda Naval Air Station OUI Revised Draft
RI Report (Report).

Introduction

The Geologic Services Unit (GSU) was requested to comment on the above report for the Alameda Naval Air Station (Site) Operable Unit 1 (OUI) based on comments previously raised in DTSC Memorandum of 27 March 98 by Michael Finch to Mary Rose Cassa on the Draft Remedial Investigation (RI) Report. Many of the technical concerns found in the Draft RI Report were adequately handled in the Revised Draft RI Report. Some technical points, however, remain unresolved as discussed below.

General Comments

First, the single major concern voiced by the GSU involved delineation of the various Site cross sections used in the Report. The GSU was unable to discern the geologic basis for correlation of the various lithologic units such as Fill, Bay Sediments, Merritt Sand, Upper San Antonio, and Lower San Antonio. The cross section that best exemplifies these concerns is section A-A'. No basis is given in the cross section for dividing the Bay Sediments from the Merritt Sand. Sands tend to dominate the lithologic column both before and after passing from Bay Sediments into Merritt Sand. Close examination of the boring

Mary Rose Cassa
Alameda Naval Air Station

logs also shed no light on the logic used to delineate between these two units. The logs show notations between the units, but appear to have been written after the fact in different handwriting. The Report must provide the technical reasoning and basis for lithologic unit correlation or any conclusions drawn from the cross sections cannot be of any use in contaminant fate and transport.

The GSU will be meeting with Matt Udell of TertaTech (which prepared the Report) on 13 Nov. 98 to try and resolve the issue of cross sections used in the Report.

Second, the GSU believes that the Site is underlain by a complex maze of interconnected or partially disconnected sandy, inter-fingered layers or subunits. These coarse-grained sediments can introduce preferential pathways that allow for the rapid movement of contamination. The cross sections presented in the report should concentrate on potential pathways for contamination and not units cited in geologic literature.

Detailed Comments

In Table 5-5 the Fate and Transport Model Input Parameters use ground water seepage and flow rates far too slow for the sediments found at the Site. The rates should be raised at least one order of magnitude to around 0.2 to 0.15 ft/day to account for preferential pathways through inter-fingered sands.

Recommendation: Re-perform the fate and transport model using more representative rates for ground water seepage (0.2 to 0.15 ft/day).

Page 2-9 of the Report states that, Bay Sediments are laterally continuous in the western and central regions of the installation, behaving as a local confining layer. The GSU remains unconvinced that the Bay Sediments act as a confining layer at the Site. Inter-fingered sands are present throughout the Bay Sediments and can introduce preferential pathways for contamination transport.

Recommendation: Remove the claims of confining layer for the Bay Sediments.

Mary Rose Cassa
Alameda Naval Air Station

If you have any questions please contact me at (916) 255-3583.



Tetra Tech EM Inc.

10670 White Rock Road, Suite 100 ♦ Rancho Cordova, CA 95670 ♦ (916) 852-8300 ♦ FAX (916) 852-0307

October 16, 2000

Mr. Lou Ocampo, PE
Remedial Project Manager
Naval Facilities Engineering Command
BRAC Operations, Southwest Division
1230 Columbia Street, Suite 1100
San Diego, California 92132-5190

Subject: Various Correspondence from Regulatory Agencies for inclusion into the Administrative Record for the Fleet and Industrial Supply Center, Oakland Alameda Facility/Alameda Annex, or Alameda Point, Alameda, California CLEAN Contract No. N62474-94-D-7609, Contract Task Order No. 271

Dear Mr. Ocampo:

Per your request enclosed is one copy of the following correspondence for your files:

- Draft Operable Unit (OU)-1 Remedial Investigation (RI) comments from United States Environmental Protection Agency (EPA), dated April 10, 1998.
- Draft OU-1 RI comments from Department of Toxic Substance Control (DTSC), dated April 15, 1998.
- Revised Draft OU-1 RI comments from DTSC, dated November 3, 1998.
- Revised Draft OU-1 RI comments from EPA, dated November 6, 1998.
- EPA Review of Draft Final Marsh Crust Feasibility Study for Alameda Annex and Alameda Naval Air Station dated February 7, 2000.
- DTSC comments on Draft Final Feasibility Study for the Marsh Crust and Groundwater at the Fleet and Industrial Supply Center, Oakland Alameda Facility/Alameda Annex and for the Marsh Crust and Former Subtidal Area at Alameda Point dated February 7, 2000.
- EPA comments on the Action Memorandum for Marsh Crust Time-Critical Removal Actions at East Housing Area dated March 14, 2000.
- EPA Review of Public Draft Record of Decision/Remedial Action Plan for Marsh Crust and Groundwater at Alameda Annex and Marsh Crust and Former Subtidal Area at Alameda Point dated July 19, 2000.

Six copies of each correspondence have been forwarded to Ms. Dianne Silva for inclusion into the administrative record files at Alameda Facility/Alameda Annex or Alameda Point.

If you have any questions, please call me at (916) 853-4512.


Sincerely,

Mark R. Reisig
Project Manager

Enclosure

cc: Ms. Diane Silva, Navy Information Repository (3 copies of each)
File

TC 0271.10613

 contains recycled fiber and is recyclable



TETRA TECH EM INC.

TRANSMITTAL/DELIVERABLE RECEIPT

Contract No. N62474-94-D-7609

Document Control No. TC . 0271 . 10613

TO: Mr. Richard Selby, Code 02R1
Contracting Officer
Naval Facilities Engineering Command
Southwest Division
1230 Columbia Street, Suite 1100
San Diego, CA 92132-5190

DATE: 10/16/00
CTO: 0271
LOCATION: Alameda Annex, Alameda

FROM: *Daniel Chow*
Daniel Chow, Program Manager

DOCUMENT TITLE AND DATE:

Various Correspondence from Regulatory Agencies for inclusion into the Administrative Record
for the Fleet and Industrial Supply Center, Oakland Alameda Facility/Alameda Annex, ~~or~~
Alameda Point, Alameda, California. Dated October 16, 2000 (These documents are forwarded
to Ms. Diane Silva for inclusion into the Alameda Annex ~~or~~ Alameda Point information repository.)

TYPE: ☐ Contractual Deliverable ☐ Technical Deliverable ☒ Other

VERSION: Final REVISION #: NA
(e.g., Draft, Draft Final, Final)

ADMIN RECORD: Yes ☒ No ☐ CATEGORY: Confidential ☐

SCHEDULED DELIVERY DATE: 10/18/00 ACTUAL DELIVERY DATE: 10/18/00

NUMBER OF COPIES SUBMITTED TO NAVY: 0/7C/8E
O = original transmittal form
C = copy of transmittal form
E = enclosure

COPIES TO: (Include Name, Navy Mail Code, and Number of Copies)

NAVY:	TtEMI:	OTHER:
L. Ocampo (06CALO)	File/ Doc. Control	
O/1E	1C/1E	
D. Silva (4MG.DS)		
6C/6E		
L. Holloway (03EN.LID)		
1C/1E <u>TV</u>		

Date/Time Received

10 16 100 00

1000